

Remarks

The Applicants have added new Claim 50. New Claim 50 recites that the yield strength of the high strength stainless seamless steel pipe is about 413 to 579 MPa. Support may be found in various locations in the Applicants' specification, such as in paragraph [0001] of the substitute specification that recites that the yield strength may about 413 MPa or higher. Then, direct support for the upper end of the range may be found on page 36, Table 7, pipe number 38, which has a yield strength of 579 MPa. Entry into the official file and consideration on the merits is respectfully requested.

The Applicants note with appreciation the withdrawal of the rejection based on the combination of ASM Handbook with Kushida.

The Applicants also note that the provisional obviousness-type double-patenting rejection has been maintained. The Applicants again respectfully request that further treatment of this rejection be held in abeyance pending resolution of the remaining issues in the application.

The claims now stand rejected under ASM Handbook in combination with JP '009. The Applicants respectfully submit that even if one skilled in the art were to make the hypothetical combination, the steel pipe resulting from that combination would still be different from the subject matter of the rejected claims. Reasons are set forth below.

The rejection admits that "JP '009 does not specifically teach that the steel pipe comprises about 10 to about 60% ferrite phase." Nonetheless, the rejection states that JP '009 "teaches that a diffraction intensity from (211) of alpha is present. Therefore, ferrite phase is present in the stainless steel seamless pipe." The rejection thus concludes that one skilled in the art "would expect the stainless steel seamless pipe of JP '009 to have a similar volume fraction of ferrite phase. See MPEP 2112."

The Applicants fully agree with MPEP 2112 and respectfully submit that MPEP 2112, when considered in its entirety, actually demonstrates that the rejected claims are not obvious over JP '009, taken alone or in combination with ASM Handbook.

The essence of the rejection is that since there is overlap in the elemental components of the stainless steel pipe of Claim 25 (for example) as compared to JP '009 as presented in the table and since the JP '009 pipe is made by similar methods, the resulting stainless steel seamless pipe of JP '009 would inherently be the same as the stainless steel seamless pipe recited in the rejected claims. The Applicants respectfully submit, however, that JP '009 does not provide enough disclosure for one skilled in the art to reasonably conclude this. In fact, the teachings of JP '009 are very sketchy indeed with respect to the various phases. For example, JP '009 really provides discussion of retained austenite (gamma) and that the amount of such retained austenite should be 10% or less. This may be found in paragraph [0010] of the JP '009 English translation. There is no discussion of the amount of martensite and no discussion of the amount of ferrite.

Some additional information is provided in the JP '009 table wherein the amount of 1) martensite plus austenite or 2) martensite plus ferrite or 3) martensite plus austenite plus ferrite are provided. This may be seen in the fifth column from the left of the table on page 10 of the JP '009 English translation. Referring specifically to the table, it can be seen that steel nos. 11 – 16 are comparative examples and, accordingly, are surely not steels of the JP '009 invention or steels that would be characterized favorably. This leaves steel nos. 1 – 10 and 17 – 20. In every instance, those steels are described as martensite plus austenite in various percentages and the amount of austenite is shown in the adjacent column. Unfortunately, there is no way to tell as to how much ferrite is actually present in those steels. Thus, when the fact that the table does not

provide any disclosure of the amount of ferrite and there is no discussion of the amount of ferrite is frankly acknowledged in the rejection, it inherently follows that JP '009 is non-enabling with respect to teachings concerning the amount of ferrite. On this basis alone, the Applicants respectfully submit that this means that the rejection is merely speculating as to the amount of ferrite disclosed by JP '009 and this cannot satisfy the requirements of MPEP 2112.

In any event, there is additional proof that the steels of the rejected claims are not inherently the same as those of JP '009. In that regard, it must be remembered that demonstrating inherency under MPEP 2112 requires that the aspects at issue must "necessarily" be present. It is not enough that the characteristics could be present, might be present or are likely present. They must "necessarily" be present.

With that in mind, it stands to reason that if the phase structure of the steels of JP '009 is inherently the same as those of Claim 25, various of the physical characteristics would be the same. However, the actual disclosure and teachings of JP '009 and the Applicants' disclosure factually show that the steels are quite different. This may be found by referring again to the table on page 10 of the JP '009 English translation in the column showing yield strengths in MPa. All of the yield strengths are well into the 900+ MPa range for the JP '009 inventive examples, with the exception of a single example.

This is sharply contrasted to the Applicants' steels which have much lower yield strengths. The Applicants invite the Examiner's attention to Tables 3 and 7 of the Applicants' specification wherein it can be seen that the inventive examples range from the 400s up to 579 MPa. This is a striking difference of nearly 300 MPa in the respective yield strengths. The Applicants respectfully submit that this direct, apples-to-apples comparison of yield strengths between the steels of JP '009 and the Applicants' steels demonstrates that the Applicants' steels

are not inherently the same as those of JP '009. Thus, given the acknowledged lack of disclosure regarding the amount of ferrite in JP '009, the Applicants respectfully submit that JP '009 fails to provide evidence that demonstrates that the steels of JP '009 are "necessarily" the same as those of the Applicants. In fact, the facts seem to indicate just the opposite --- namely that the steels of JP '009 are necessarily and inherently different from those of the Applicants. Therefore, JP '009 is completely inapplicable.

Moreover, even if one skilled in the art hypothetically looked to ASM Handbook, the Applicants respectfully submit that there is nothing in that disclosure that would motivate one skilled in the art to have a reasonable expectation that ferrite would exceed 15% given the Applicants' claimed upper amount of 18% Cr and the upper amount of Cr of 17% in JP '009. Looking to ASM Handbook on pages 13 and 14 which refer those skilled in the art to Figure 30 on page 11, it can be seen that the amount of ferrite is not disclosed as exceeding 15% when the maximum amount of chromium is at 18%.

In fact, the Applicants respectfully submit that ASM Handbook teaches those skilled in the art that when the amount of Cr is at a maximum of 18%, the amount of ferrite is almost exactly half of the speculated 15% or more from the rejection. Accordingly, the Applicants respectfully submit that not only does ASM Handbook not lead those skilled in the art to increase the amount of ferrite phase about 15%, but it would lead one skilled in the art to have a reasonable expectation of success that when the amount of Cr is at a maximum of the claimed 18% range, the amount of ferrite would be much, much lower.

The Applicants therefore respectfully submit that the hypothetical combination of ASM Handbook with JP '009 actually leads those skilled in the art away from the Applicants' claimed subject matter. This is because the combination leads those skilled in the art to believe that the

amount of ferrite would be no more than about 7.5% at the upper end of the Applicants' range as opposed to the speculated 15% or more. Of course, this is already taken in the context of the fact that the JP '009 steels have already been factually demonstrated as being very, very different based on the wide disparity in yield strengths. Withdrawal of the rejection is respectfully requested.

The Applicants respectfully submit that new Claim 50 is further patentable over the combination. The Applicants, as noted above, have already demonstrated that the yield strengths of the JP '009 steels far exceed those as recited in Claim 50. Hypothetically combining ASM Handbook with JP '009 does nothing to lead one skilled in the art to believe that the yield strengths would be altered in a radical enough fashion to be within the claimed range. Thus, the Applicants respectfully submit that Claim 50 is also in condition for allowance.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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